

## APPENDIX A

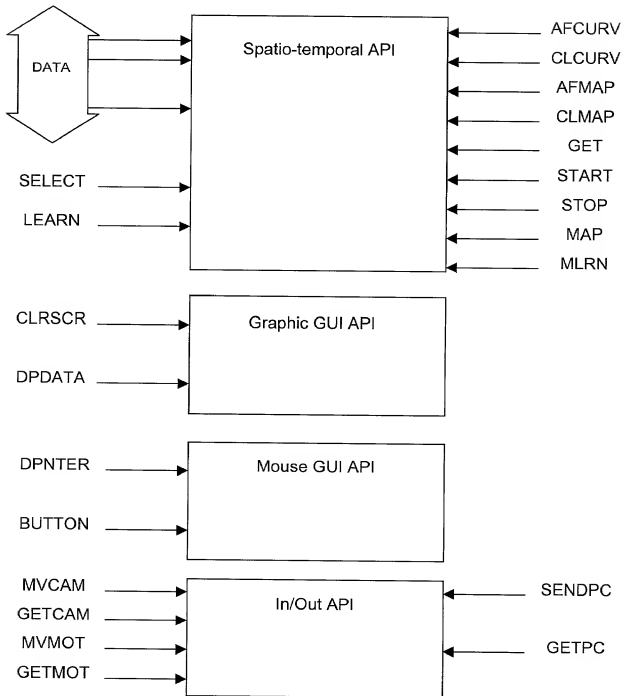
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## APPENDIX A

### API Specifications

4 sub division for GVPP :

- Spatio-temporal computation API
- Graphic GUI API
- Mouse GUI API
- Communication and input-output API



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## Spatio-temporal API Bloc

This group enables all instructions to run the generic spatio-temporal computations and to get the results.

Functions :

### **START :**

Goal: Initialisation of one bloc for the classification.

Parameter : index bloc, MIN value, MAX value.

Prototype :

```
Bloc3 equ 03
MIN equ 10
MAX equ 100
```

START Bloc3 MIN MAX

```
Input - R0 : index bloc
        R1 : MIN value
        R2 : MAX value
```

Output -

### **STOP :**

Goal : end of computation.

Parameter : index bloc.

Prototype :

```
Bloc3 equ 03
```

STOP Bloc3

```
Input - R0 : index bloc
Output -
```

### **SELECT :**

Goal : Programmation of input parameter bloc(lum, hue,motion, line orientation).

Parameter : Index bloc, type of input parameter.

Prototype :

```
Bloc3 equ 03
LUM equ 00
```

SELECT Bloc3 LUM

```
Input - R0 : Index bloc
        R1 : Input parameter
```

Output-

### GET :

Goal : Get the result computation of one parameter.

Parameter : Index bloc, Load result parameter.

#### Prototype :

```
Bloc3      equ  03
MIN         equ  00
MAX         equ  01
RMAX        equ  02
POSRMX      equ  03
POSMOY      equ  04
NBPTS       equ  05
.....
```

GET Bloc3 NBPTS

Input - R0 : Index bloc

R1 : Index parameter

Output- R0 : result value of this parameter

### LEARN :

Goal : Learn the association-context of a bloc .

Parameter : Index bloc.

#### Prototype :

```
Bloc3      equ  03
```

LEARN Bloc3

Input - R0 : Index bloc

Output-

### MAP :

Goal : Put on the time coincidences fonction the result of previous learning.

Parameter : Index bloc, summ of product-terms.

#### Prototype :

```
Bloc3      equ  03
```

MAP Bloc3 0F3 1AB 007

Input - R0 : Index bloc

R1 : First product terms

R2 : Second product terms

R3 : .....suite

Output-

### MLRN :

Goal : Get the result of learning.

Parameter : Index Bloc.

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Prototype :

MLRN  
Input - R0 : Index bloc  
Output- R0 : MIN classification  
R1 : MAX Classification  
R2 : First main association (product terms)  
R3 : Second association  
R4 : .....suite

*AFCURV :*

Goal : Histogram curve drawing of one bloc.

Parameter : Index Bloc.

Prototype :

Bloc3 equ 03

AFCURV Bloc3

Input - R0 : Index bloc

Output-

*CLCURV :*

Goal : Clear curve of one bloc.

Parameter : Index Bloc.

Prototype :

Bloc3 equ 03

CLCURV Bloc3

Input - R0 : Index bloc

Output-

*AFMAP :*

Goal : Learning Bloc drawing.

Parameter : Index Bloc.

Prototype :

Bloc3 equ 03

AFMAP Bloc3

Input - R0 : Index bloc

Output-

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CLMAP :

Goal : Clear the learning bloc drawing.

Parameter : Index Bloc.

Prototype :

Bloc3 equ 03

CLMAP Bloc3

Input - R0 : Index bloc

Output-

### Graphic GUI API

CLRSCR :

Goal : Clear Screen.

Parameter : No.

Prototype :

CLRSCR

Input -

Output-

DPDATA :

Goal : Display ASCII code on screen.

Parameter : ASCII code, row position, column position.

Prototype :

DPDATA

Input - R0 : ASCII code

R1 : row position

R2 : column position

Output-

### Mouse GUI API

DPNTER :

Goal : Mouve and display the pointer.

Parameter : row position, column position.

Prototype :

DPNTER

Input - R0 : row position

R1 : column position

Output-

*BUTTON :*

Goal : get the action of button.

Parameter : Button.

Prototype :

BUTTON

Input -

Output- R0 : new position of buttons

API E/S

*MVCAM :*

Goal : Move the camera.

Parameter : X Position, Y Position, Focus.

Prototype :

MVCAM

Input -

R0 : X position

R1 : Y position

R2 : Focus

Output-

*GETCAM :*

Goal : Get the camera's parameters.

Parameter : No.

Prototype :

GETCAM

Input -

Output- R0 : X position

R1 : Y position

R2 : Focus

*MVMOT :*

Goal : Action motor.

Parameter : Sens+steps.

Prototype :

MVCAM

Input -

Output- R0 : Sens+steps

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**Goal** : Get the actual position of motor.

Prototype :

GETMOT

Input -

*SENDPC :*

Goal : Send one information to the PC.

Parameter : information pointer.

Prototype :

SENDPC

Input - R0 : information pointer

*GETPC :*

**Goal** : Get an information from PC.

Parameter : No.

Prototype :

GETPC

Input -

Output- R0 : information